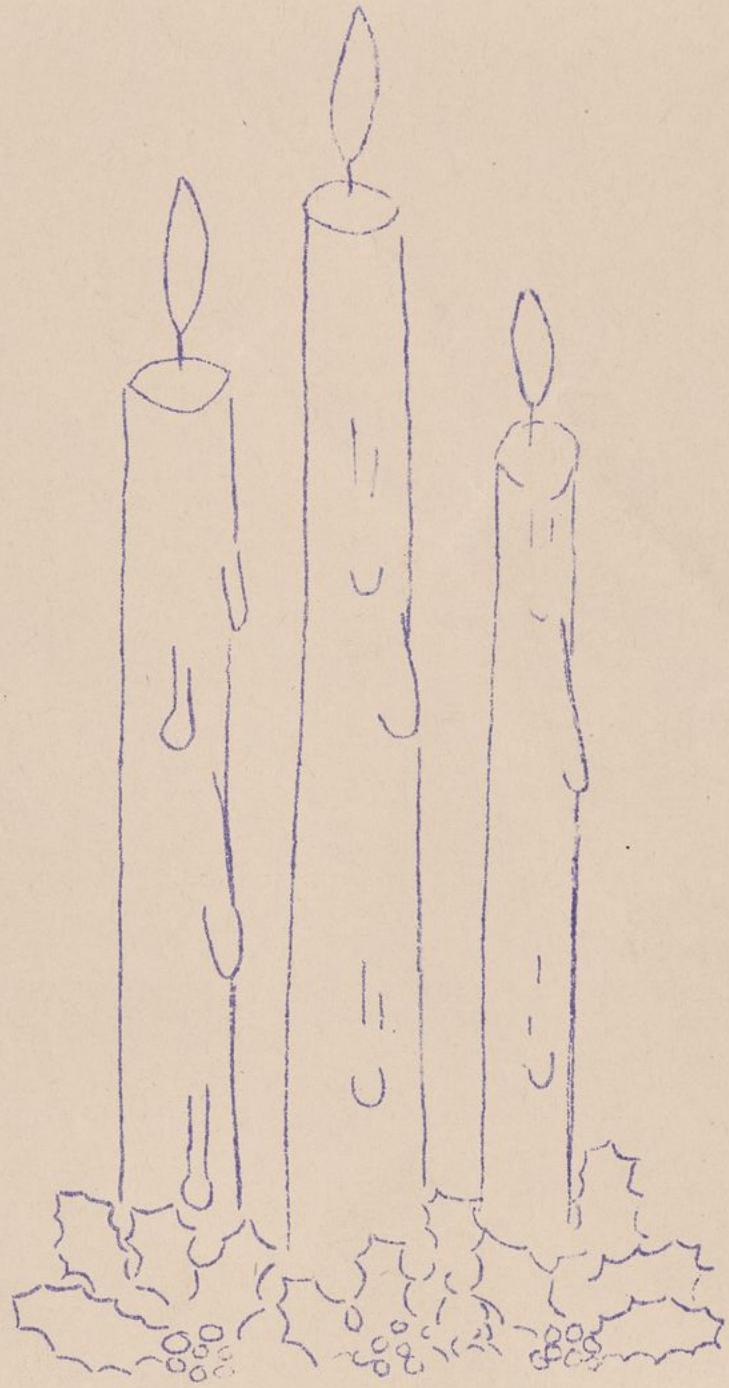
I.B.S. BULLETIN



Christmas 1945

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THE INTERCOLLEGIATE BROADCASTING SYSTEM

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Editor: Sonia-Jane Brown

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PRAYER FOR TODAY

Lord God of trajectory and blast
Whose terrible sword has laid open the serpent
So it withers in the sun for the just to see,
Sheathe now the swift avenging blade with the names of nations writ on it
And assist in the preparation of the plowshare.

Lord God of fresh bread and tranquil mornings,
Who walks in the circuit of heaven among the worthy,
Deliver notide to the fallen young men
That tokens of orange juice and a whole egg appear now before the hungry children;
That night again falls cooling on the earth as quietly as when it leaves your hand;
That Freedom has withstood the tyrant like a Malta in a hostile sea,
And that the soul of man is surely a Sevastopol which goes down hard and leaps from ruin quickly.

Lord God of the topcoat and the living wage
Who has furred the fox against the time of winter
And stored provender of bees in summer's brightest places,
Do bring sweet influences to bear upon the assembly line:
Accept the smoke of the milltown among the accredited
clouds of the sky:
Fend from the wind with a house and a hedge, him whom you
made in your image,
And permit him to pick of the tree and the flock
That he may eat today without fear of tomorrow
And clothe himself with dignity in December.

Lord God of test-tube and blueprint
Who jointed molecules of dust and shook them till their
name was Adam,
Who taught worms and stars how they could live together,
Appear now among the parliaments of conquerors and give
instruction to their schemes:
Measure out new liberties so none shall suffer for his
father's color or the credo of his choice:
Post proofs that brotherhood is not so wild a dream as
those who profit by postponing it pretend:
Sit at the treaty table and convoy the hopes of little
people through expected straits,
And press into the final seal a sign that peace will come
for longer than posterities can see ahead,
That man unto his fellow man shall be a friend forever.

Norman Corwin
(from "On A Note of Triumph")

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A motion was passed at the meeting of the Baard of Governors on November 25 that this issue of the Bulletin contain a directory of all the active stations. Addresses, Personnel, and call letters for these stations follow. Where no personnel are listed, the station has not returned the personnel questionnaire to this office.

* indicates delegates to the November meeting.

UNIVERSITY OF ALABAMA: Station BRN

Station BRN
Box 2873
University of Alabama
University, Alabama

President: Ruth Clayton *
Secretary-Treasurer: Audrey Weiskoff
Prog. and Prod, Director: Rhea Yarborough
Publicity Director: Frances Farrell *
Continuity Director: Marie Carlisle
Sound and Music: Jill Allen
News Director: Elverna Klinner
Chief Announcer: Victor Batson
Chief Engineer: Earl Karm

BROWN UNIVERSITY: Station WBRU

Brown Network
Faunce House
Brown University
Providence 12, R.I.

President: William Murphy
Program Director: H.J.Hoskins
Business Manager: Joe Palastak
Technical Director: Joe Beardwood

BRYN MAWR COLLEGE: Station WBMC

Station WBMC
Bryn Mawr College
Bryn Mawr, Penna.

President and Bus. Mgr: Mary Camilla Williams *
Production Manager: Martha Macdonald
Chief Engineer: Diane Dame
Acting and Announcing: Charlotte Edlin
Music Director: Betty Lilly
Feature Director: Jane Manthorne

BUCKNELL UNIVERSITY: Station WBRG

Station WBRG
Bucknell University
Lewisburg, Penna.

President: Peggy Ryan *
Business Director: Emily Kelly

COLUMBIA UNIVERSITY: Station CURC

Station CURC
Hamilton Annex
Columbia University
New York City 27

President: William Wise *
Technical Manager: Tak Kako

CORNELL UNIVERSITY: Station CRG

Cornell Radio Guild
Willard Straight Hall
Cornell University
Ithica, New York

President: George Utting
IBS Representative: Helene Fehrer

HARVARD UNIVERSITY: Station WHCN

Crimson Network
Dudley Hall
16 Dunster Street
Cambridge 38, Mass.

President: Martin Bookspan
IBS Representative: Richard Kaye*
Program Manager: I. Louis Weinman
Business Manager: Thomas Lehrer

HAVERFORD COLLEGE: Station WHAV

Station WHAV
Haverford College
Haverford, Penna.

President: William Bell *
Program Director: Nick Hazelwood
Business Manager: William Swartley
Chief Engineer: Richard Rivers
Production Engineer: Bruce Miller

MARY WASHINGTON COLLEGE: Station WMWC

Station WMWC
George Washington Hall
Mary Washington College
Fredricksburg, Va.

Manager: Marion Brooks *
Recording Engineer: Ellen Bono
Program Director: Catherine Walker
Program Engineer: Mary Jane Lindenburger
Chief Announcer: Nell Dawes
Sales Manager: Elizabeth Law
Publicity Director: Virginia Pinchbeck
Religious Activities: Ellen Lane
Sound Effects: Ruth Meyer
Business Manager: Lois Anderson
Chief Engineer: Mary Anne Gormley
Music Director: Emma N. Ayala
Drama Director: Marilyn Bennett
Traffic Manager: Betsy Hilldrop

UNIVERSITY OF PENNSYLVANIA: Station WXPN

Station WXPN
Houston Hall
University of Pennsylvania
Philadelphia 4, Pa.

President: Robert Currie *
Business Manager: William Vidal
Technical Director: Mark Wemet

PRINCETON UNIVERSITY: Station WPRU

Station WPRU
Princeton Broadcasting Service
L-A 10th Entry, Holder Hall
Princeton University
Princeton, New Jersey

Station Manager: Paul J. Schumacher
Technical Director: David Butz
Publicity and Business: Frank Rosenburg *
Advertising: Donald McCaskill
Program Director: William Westlake
Assistant Prog. Dir.: Stanley Abensur
IBS Representative: Charles Neibel *

RADCLIFFE COLLEGE: Station WRAD

Station WRAD
Cabot Hall
100 Walker Street
Cambridge 38, Mass.

President: Eleanor Reed
Program Director: Barbara Ranier *
Production Director: Barbara Denison
Technical Director: Eve Wasserberger
Business Manager: Eva Persson
Secretary: Barbara Reid

STEPHENS COLLEGE: Station KTX

Station KTX
Stephens College
Columbia, Missouri

SWARTHMORE COLLEGE: Station WSRN

Swarthmore Network
Swarthmore College
Swarthmore, Penna.

Manager: Margaret Cole
Program Director: John Pessolano
Production Director: Eleanor Wickes
Technical Director: Michel [illegible]

Swarthmore, continued:
Chief Engineer: Mary Westergaard
Engineering Advisor: Irving Dayton
Secretary: Barbara Knickerbocker
Treasurer: Barbara Thorp
Publicity Director: Laura Johnson

UNION COLLEGE: Station UCRS

Station UCRS
Union College
Schenectady, N.Y.

President: Boyd Howe *
Program Director: Bob Geisner
Business Manager: Roy Vanderburg

WELLESLEY COLLEGE: Station WBS

Station WBS
422 Green Hall
Wellesley College
Wellesley 81, Mass

President: Marte Bransfield
Business Manager: Joanne Lundholm *

WESLEYAN UNIVERSITY: Station WES

Station WES
Clark Hall
Wesleyan University
Middletown, Conn.

President: Peter Hayes

WILLIAMS COLLEGE: Station WMS

Station WMS
Williams College
Williamstown, Mass.

President: Harry Bane *
Business Manager: Lewis Somers 3rd *
Technical Director: Lou Lawton

YALE UNIVERSITY: Station WOCD

Station WOCD
193 York Street
Yale University
New Haven, Conn.

President: Hartley Rogers, Jr.
IBS Representative: Daniel Weinig *
Program Director: Brad Westerfield
Business Manager: James Damon

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The Radio Editor of the new girl's magazine Junior Bazaar has been in the office several times lately. He is looking for material on IBS stations to feature in his column. We would like to have as much "human interest" material about the girls who work on IBS stations as possible. We would like to receive material on everything newsworthy that any station does. We want to get IBS better known.

IBS TECHNICAL ADVISORY COMMITTEE

In the past year a committee of Technical Advisory has been formed. Mostly graduates of IBS colleges, they work for electronics or radio concerns or do research. They give the Technical Department much valuable advice on a voluntary basis and do some research and development for IBS. In addition, many of them advise specific IBS stations.

Here they are:

Gordon Graham: attended Brown University, member AIEE, works at present for instruments sales division of Westinghouse.

Gladden Houck: attended Union College, helped found UCRS. Worked for Western Electric during the war designing radar test equipment. Now works for Pan American Electronics. Assistant Technical Manager of IBS in charge of Facilities.

William Hutchins: attended NYU and Columbia University. Helped found and build CURC. Works for Major Armstrong on research and design. Now working on phonograph pickups; specializes in audio equipment.

Richard Kaye: attended Harvard University, graduating in 1944. Worked on Crimson Network, holding many posts in the program department. Designed and built new studio equipment for WHCN. Now a graduate student.

Robert Mills: expert in Ultra High Frequency work. Does research in Radiation Lab at Princeton, N.J.

Clem Moritz: works for Philco Corporation Research in Philadelphia. Specializes in Radio Frequency work.

Howard Tompkins: attended Swarthmore College, where he work ed on the Swarthmore Network and held posts of Music Director, Program Director, Technical Director, and General Manager. Now a senior engineer in the Research Division of Philco. Associate, IRE. Specializes in audio control equipment.

William Tuller: attended MIT, holds B.Sc. and M.S. Did research at the MIT Ultrahigh Frequency Lab, and was a staff member of the MIT Radiation Lab. Senior Engineer in charge of microwave development at Raytheon. Now a Research Associate at MIT Electronics Lab and consultant for Raytheon. Specializes in Ultra high frequency work.

Paul Yergin: attended Union College where he designed and built equipment for the station. Now a graduate student at Columbia and doing research at the Columbia Radiation Lab. He specializes in station and IBS operational policy. He is the Assistant Technical Manager of IBS in charge of design.

THE BEST WAYS TO INCREASE A STATION COVERAGE

The Problem

With the release of radio components to the civilian market and greater manpower available to work on construction projects, most of the stations in IBS are considering plans to increase and improve their coverage. Plans are under way to eliminate areas where the signal level is low, and reduce audio distortion. Such conditions were tolerated during the war because there was little or nothing that could be done about it.

While the spirit of these plans is backed 100% by everyone in IBS, a word of caution is in order for the benefit of zealous station designers who can bring difficulties to the station when permitted to operate without restraint. The problem is to prevent unlawful radiation. To do this a careful analysis of the coverage problem must be made before going ahead on the construction program.

The Basic Means

Since the start of college broadcasting, several different wired-radio frequency transmission schemes have been used. Of these, one type has proved to be the most universal in its application and the most able to be used successfully without great difficulties in adjustment and initial design.

This preferred method is to install twisted pair RF transmission lines around the campus from a centrally-located transmitter to all of the buildings wherein coverage is desired. The lines are coupled into the a-c wiring in the buildings to complete the direct radio frequency path from transmitter to receiver. This method will produce less radiation than trying to use high voltage a-c lines, and is better than a number of small independent transmitters because there is only one transmitter to properly adjust on frequency, and keep operating.

Installation Details

When installing such a system it is not necessary to use a large transmitter to cover even a relatively large campus. A unit rated 10 watts input to the modulated RF power stage (about 6 watts of RF output) is a sufficiently large transmitter to start the system. To obtain a satisfactory signal level in all buildings the lines must be of good quality wire, and coupling to building a-c systems must be thorough. Coupling is best done at load center points such as the main fuse box in the building and at as many of these main points as possible. The a-c wiring from one building to another should not be relied upon to carry the RF signal. Instead a line should be installed for each building.

The transmitter should be in a central location so the campus line system can be split into a number of main branches. Each of these branches should be independently coupled to the transmitter, it then being possible to adjust the coupling so that each section of the campus receive an adequate amount of RF power without wasting power at another part of the campus. The distribution of power along each line can be controlled by varying the size of the coupling capacitors (condensers) which connect the line to the a-c wiring. A good average value of coupling capacitors is 0.005 mfd. Larger capacitors than average should be used in large buildings, and for buildings on long RF lines.

R.F. Amplifiers

Sometimes it is found that certain buildings will be located at a considerable distance from the rest of the campus. In this event, the signal will be too low at the end of the long transmission line required to reach these buildings. A linear RF boosting amplifier may be installed at the end of the line to raise the signal level at these distant buildings to a level comparable with that in the other buildings.

R.F. Traps

A further improvement in signal level in all buildings will be obtained if RF traps are installed at the incoming a-c connection to the building. These traps will prevent the RF from feeding out into the a-c distribution system, thus preventing radiation from the distribution system wiring and preventing back feed of RF into the high voltage primary circuits. When all buildings are equipped with a-c lines RF traps, the average signal level in the buildings may be considerably increased without the danger of excessive radiation.

When Streets Intervene

In many colleges a system of lines emanating from one transmitter cannot reach all locations desiring reception because local ordinances prohibited crossing city streets with private lines. Sometimes these locations can be reached by erecting the lines underground in steam tunnels or snaking them through heating pipe conduits, the locations of which are known to the Superintendent of buildings and grounds. If these means fail to permit a direct RF line from transmitter to each important student dwelling, rented audio telephone lines must be utilized.

The rented telephone line transmits the program as an audio signal to the remote location. A transmitter is installed at the remote location to give the desired coverage. It may be designed to operate on the same frequency as the main transmitter, or on an adjacent channel if hetrodyne between the main and remote transmitters is serious. (If the radiation from both the transmitters is within the law, the hetrodyne problem should not be serious.)

The number of remote transmitters and telephone lines should be kept to a minimum by connecting each remote transmitter to an RF line system, each line system reaching as many off-campus buildings as possible. For example, a city college would locate one transmitter on each block off the campus proper where there are student dwellings. The number of remote transmitters can in this way be kept to the minimum practical number.

Circuit Data

Circuits are available from IBS for the equipment mentioned in this article, including suitable transmitters, transmitter-to-line couplers, RF booster amplifiers, and a-c line RF traps. IBS is negotiating with a capacitor manufacturing company with the hope that a-c line RF traps having a range of current ratings can be made available for our use.

Conclusion

Transmitters now being designed should be kept within the 10 watt input power rating previously specified. To obtain good coverage without illegal radiation some improvements of lines, structure, and coupling methods will usually be needed. A transmitter of too large power is not an asset as the excess power will have to be wasted in a dummy lamp load (as has been the experience at several stations in the past) if illegal radiation is to be prevented.

David W. Borst
Technical Manager

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MIDAT Wooed by Phillie Big Boys

It was a big surprise to everyone on the stations of the Middle Atlantic Network of IBS to find that the local standard broadcast stations were outdoing each other to express interest and offer help.

Roger Clipp, President of WFIL, Philadelphia, and vice-president of the American Broadcasting Company, wrote a personal letter to each of the executives, and more recently sent each a handsomely bound "Executive's Year Book" for the coming year, with spaces for appointments every hour, assorted business tables, and space for entering golf scores.

WIP, the Mutual outlet, was not to be outdone. They have a permanent line to WXPN, University of Pennsylvania, and they have given permission for the Middle Atlantic stations to rebroadcast any Mutual program without notice. Programs will presumably be fed to Penn over the line from WIP.

A reciprocal arrangement, by which WIP will take and rebroadcast some programs from MIDAT, may be worked out for the future.

Notes from I. B. S. R.

1. Organization: Intercollegiate Broadcasting Station Representatives as of December 15th is composed of the following personnel:

Manager: Walter H. Robinson
Assistant: Malcolm P. Furman
Office Assistant: Rosalind Epstein

The new management is endeavouring to arrange its business operations so that Mr. Robinson and Mr. Furman can devote as much time as possible to actual solicitation of advertising for IBSR member stations. Miss Epstein will work exclusively for IBSR, thus permitting our sales staff to be out the better part of each day. It is our hope that all of the office routine will evolve upon her. In the past, this office routine had not been the responsibility of any one person in particular, as our former secretary was also in the employ of IBS.

2. Plans: Our plans are almost as big as the proverbial small boy's eyes in relation to his stomach. However, we hope to operate as a "Sales force" in every sense of the word. We have, in the last few weeks, straightened out our records, instituted a new filing system, and ironed out a few of the office kinks. Our plan of operation is outlined in paragraph 1, under organization.

3. Methods: The method of securing advertising for IBS stations will be one which constantly keeps in mind this one thought, namely: Is the account one which is particularly suited and adaptable to the media of college advertising? We intend to concentrate on this type of business.

4. Types of accounts contacted: Up to the present time we have been largely occupied with office routine but we've been getting out as much as possible. The Herald-Tribune will continue its spot announcement campaign into 1946, though they may change their list of stations (more on this in the near future). Gruen of course, is still on our books. We plan to leave no stone unturned in our efforts to get the major cigarette accounts, and we're going after the cosmetic, shaving cream, magazine, clothing, and pen and pencil people. And many more.

5. The Future, Ours and Yours: We don't want you to expect miracles overnight. We can assure you a substantial increase in new business for the coming year and ask of you, in return, your cooperation and continued good work and enthusiasm.

Walter H. Robinson,
Manager